

IN THE CLAIMS

1. (Currently Amended) A method for diagnosing a condition of a disease characterized by non-physiological levels of hepcidin, comprising obtaining a tissue or fluid sample from a subject; contacting the sample with an antibody or fragment thereof that specifically binds to one or more carboxy terminal epitopes of SEQ ID NO: 2, and quantifying hepcidin level in the sample; wherein:

the disease condition is selected from chronic renal insufficiency, renal anemia and hereditary hemochromatosis disturbances of iron metabolism resulting in iron deficiency or overload, genetic and nongenetic iron overload diseases, liver diseases, diseases of utilization of iron, hematologic diseases, renal diseases, inflammations and infections, immunologic diseases and tumors;

the tissue or fluid sample is selected from kidney samples, liver samples, blood samples, and urine samples; and

the non-physiological level of hepcidin is indicative of the disease.

2. (Cancelled)

3. (Previously Presented) The method of claim 1, wherein the antibody specifically binds a carboxy terminal epitope contained within amino acids 70 to 84 of SEQ ID NO: 2.

4. (Previously Presented) The method of claim 1, wherein the quantifying comprises conducting an assay selected from the group consisting of a radioimmunoassay, a sandwich assay, a precipitin reaction, a gel immunodiffusion assay, an agglutination assay, a fluorescent immunoassay, a protein A immunoassay and an immunoelectrophoresis assay.

5- 14 (Cancelled)

15. (Original) The method of claim 1, wherein said hepcidin comprises pro-hepcidin, hepcidin or fragments thereof.

16. (Original) The method of claim 1, wherein said hepcidin comprises pro-hepcidin.

17 - 24. (Cancelled)

25. (Currently Amended) The method of claim 1, wherein the disease is chronic renal insufficiency, ~~renal anemia~~, or hereditary hemochromatosis.

26. (Currently Amended) The method of claim 1, wherein the disease is ~~iron deficiency anemia, hemosiderosis, hemochromatosis, secondary hemochromatosis, aceruloplasminemia, hypotransferrinemia, atransferrinemia, sideroblastic anemia, thalassemia, leukemia, polyglobulie, macrocytic, microcytic or normocytic anemia, anemia with reticulocytosis, hemolytic anemia, chronic renal insufficiency, renal anemia, hereditary hemochromatosis, an inflammatory disease or an infectious disease.~~

27. (Currently Amended) A method of detecting hepcidin comprising:
obtaining a tissue or fluid sample from a subject; and contacting the sample with an antibody or fragment thereof that specifically binds to one or more carboxy terminal epitopes of SEQ ID NO: 2; wherein the tissue or fluid sample is selected from a kidney sample, a liver sample, ~~a blood sample~~, and a urine sample, and wherein the method of detecting hepcidin is selected from Western blot, immunodot, immunohistochemistry, and immunofluorescence.

28. (Previously Presented) The method of claim 27, wherein hepcidin is prohepcidin.

29. (Previously Presented) The method of claim 27, wherein the antibody or fragment thereof binds to one or more epitopes within SEQ ID NO: 4.

30. (Previously Presented) The method of claim 29, wherein hepcidin is prohepcidin.